



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/607,827	06/30/2000	Peter Schwarz	548.0011USU	2208
7590	11/03/2004		EXAMINER	
Charles N. J. Ruggiero Ohlandt, Greeley, Ruggiero & Perle, L.L.P. One Landmark Square Stamford, CT 06901-2682			STOCK JR, GORDON J	
			ART UNIT	PAPER NUMBER
			2877	

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/607,827

Applicant(s)

SCHWARZ ET AL.

Examiner

Gordon J Stock

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 39-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 39-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. **Claims 39-42, 44, 45, 49, 50, 52, 54, 56, 58, 60, 64** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Steenhoek (4,917,495)**.

As for **claims 39-42, 44, 45, 49, 50, 52, 54, 56, 58, 60, and 64** Steenhoek in a portable colorimeter discloses the following: a halogen source at a first predetermined angle to the surface, said emitted light having a light intensity over the entire visible spectral range (Figs. 1 and 9); a photosensor aligned at a second predetermined angle to the surface and generating a signal based on reflected light (Fig. 1; 18); filters arranged between light diode and/or photosensors, blue and red filters (col. 6, lines 55-65) and the system comprises daylight spectra (col. 8, lines 1-15) and the system utilizes a sensitivity of the human eye (col. 7, lines 65-69). In addition, Steenhoek suggests that colorimetric systems with filters wish to have an aggregate spectra of light diode and photosensor and filter correspond to daylight spectrum and eye sensitivity if the illuminant has a daylight spectrum (col. 4, lines 58-69). Steenhoek discloses a controller to derive a characteristic (Fig. 2). As for gloss being determined, the system is angled at the specular angle of 45 degrees (col. 5, lines 35-50). Also three characteristics are found (col. 9, lines 10-16) which are perceptual color values (col. 4, lines 45-50). Three light sources are used (Fig. 1) and a plurality of photosensors that are at least three elements are adjacent to each other (Fig. 1, 18; Fig. 2, 18). The angles used are the following: 0, -30, and 65 degrees (col. 5, lines 35-50). In addition, color temperature is controlled and corrected and a temperature

Art Unit: 2877

monitor is used (col. 6, lines 65-67; col. 7, lines 1-5 and lines 40-49). As for relative movement, to change between twelve standard ceramic tiles (col. 9, lines 23-35), movement must be performed.

As for a diode having intensity over the entire visible range, Steenhoek is silent. However, a diode having intensity over the entire visible range is a white light source. And halogen sources are also white light sources. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to substitute the halogen source with a white diode, for they are both functionally equivalent as white light sources.

3. **Claims 43 and 59** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Steenhoek (4,917,495)** in view of **Weber et al. (5,268,749)**

As for **claims 43 and 59**, Steenhoek discloses everything as above (see **claims 39 and 56** above). However, he is silent concerning a scatter disk arrangement. Weber in an apparatus for providing uniform illumination teaches using a scatter disk, a diffuser in front of annular stop, to illuminate a sample plane uniformly (col. 10, lines 35-50). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to use a diffuser in order to uniformly illuminate the sample.

4. **Claims 46-48 and 61-63** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Steenhoek (4,917,495)** in view of **Ohkubo (5,619,427)**.

As for **claims 46-48 and 61-63**, Steenhoek discloses everything as above (see **claims 39 and 56** above). In addition, Steenhoek discloses receiving perceptual values from color coordinates (col. 4, lines 1-45). He is silent concerning a light pattern. Ohkubo in a color conversion method teaches using a light/dark edge grid pattern in order to get color coordinates

Art Unit: 2877

(Fig. 4; col. 6, lines 35-50). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to have a grid like pattern in order to determine stimulus signal from optical signals.

5. **Claim 51** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Steenhoek (4,917,495)** in view of **Klenk et al. (4,918,321)**.

As to **claim 51**, Steenhoek discloses everything as above (see **claim 39** above). However, he is silent concerning emitting a strip of light perpendicular to the direction of propagation. Klenk in a reflected light scanning method teaches using strips of light to illuminate surface in order to better profile matt surfaces (col. 1, lines 1-15 and lines 53-68). Therefore, it would be obvious to one skilled in the art at the time the invention was made to emit strips of light in order to better profile matt surfaces.

6. **Claim 53** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Steenhoek (4,917,495)** in view of **Lex (5,596,412)**.

As to **claim 53**, Steenhoek discloses everything as above (see **claim 39**). However, he does not teach a measurement wheel positioned on surface. Lex in a device for physiological assessment of reflective surfaces teaches using a measurement wheel coupled to a rotating angle output device in order to determine the exact geometric relationship of the measuring points on the surface (col. 2, lines 55-64; col. 6, lines 55-67; col. 7, lines 1-30). Therefore, it would be obvious to one skilled in the art at the time the invention was made to have the system comprise a measurement wheel coupled to a rotating angle output device in order to determine the exact geometric relationship of the measuring points on the surface being studied.

Art Unit: 2877

7. **Claims 55 and 57** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Steenhoek (4,917,495)** in view of the applicant's disclosure of prior art.

As for **claims 55 and 57**, Steenhoek discloses everything as above (see **claim 39 and 56**). As for the measuring cycle, he is silent concerning the measurement cycle being less than .2 seconds. However, the applicant's disclosure teaches prior art of a measurement cycle taking less than .2 seconds (page 5, line 27). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to have the measurement cycle be less than .2 seconds, for measurement cycles with light emitting diodes are typically less than .2 seconds in order to shorten the time it takes to measure samples.

Response to Arguments

8. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. For clarification, the applicant discussed in Remarks of October 18, 2004 that the halogen lamp with temperature compensation teaches away from a light diode. The Examiner does not find this argument persuasive, for "the diode having intensity over the entire visible range" is a white light source. And halogen sources are also white light sources. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to substitute the halogen source with a white diode, for they are both functionally equivalent as white light sources. There has been no evidence given that demonstrates the criticality of having a white diode over any other white light source such as a halogen source.

Art Unit: 2877

Fax/Telephone Numbers

If the applicant wishes to send a fax dealing with either a proposed amendment or a discussion with a phone interview, then the fax should:

- 1) Contain either a statement "DRAFT" or "PROPOSED AMENDMENT" on the fax cover sheet; and
- 2) Should be unsigned by the attorney or agent.

This will ensure that it will not be entered into the case and will be forwarded to the examiner as quickly as possible.

Papers related to the application may be submitted to Group 2800 by Fax transmission. Papers should be faxed to Group 2800 via the PTO Fax machine located in Crystal Plaza 4. The form of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CP4 Fax Machine number is: (703) 872-9306

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gordon J. Stock whose telephone number is (571) 272-2431.

The examiner can normally be reached on Monday-Friday, 10:00 a.m. - 6:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr., can be reached at 571-272-2800 ext 77.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private Pair system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 09/607,827

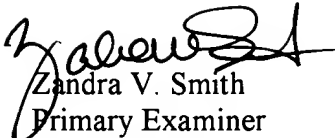
Page 7

Art Unit: 2877

FD

gs

October 29, 2004


Zandra V. Smith
Primary Examiner
Art Unit 2877